

Giovanna Marie Campisi

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EDUCATION

M.S.	Physics – IN PROGRESS <i>Foci in Condensed Matter Theory and Experiment</i> Department of Physics and Astronomy California State University- Northridge	<i>Projected Graduation: 05/2025</i>
Post-Baccalaureate Education	<i>Completed Upper Division Physics Courses</i> California State University- Channel Islands	<i>05/2022</i>
B.GS.	Bachelor of General Studies , Emphasis in Science, Technology, Health, and Society University of Arizona	<i>08/2016</i>

PUBLICATIONS

Llanos, A., **Campisi, G.**, Show, V., Kim, J., Dorrian, R., Salmani-Rezaie, S., Kioussis, N., & Falson, J. (2024). Monoclinic LaSb₂ Superconducting Thin Films. *Nano letters*, 24(28), 8518–8524. <https://doi.org/10.1021/acs.nanolett.4c01068>

AWARDS AND DISTINCTIONS

CSUN-Posium, Research Poster Symposium, First Prize Winner	<i>2023-2024 Academic Year</i>
Adrian Herzog Outstanding Graduate Student Scholarship, Sole Recipient Department of Physics and Astronomy California State University, Northridge	<i>2022-2023 Academic Year</i>

EXPERIENCE

Graduate Student Researcher , Sheng group California State University- Northridge, Northridge, CA	<i>12/2023 - Present</i>
<ul style="list-style-type: none">Studying the physics of strongly correlated systems	
SA in charge of Equipment Repair and Demo Design , Department of Physics and Astronomy STOCKROOM California State University- Northridge, Northridge, CA	<i>08/2022 – Present</i>
<ul style="list-style-type: none">Repair and maintain all equipment and demonstrations used in physics courses and laboratories.Design and build new equipment and demos for the department.	
Visiting Student Researcher, PREM REU , Yazdani Lab Princeton University, Princeton, NJ	<i>06/2024-08/2024</i>
<ul style="list-style-type: none">Designed and fabricated new 2D material heterostructures for the purpose of measuring the Fractional Quantum Hall Effect and Anyonic quantum phenomena.Worked with researchers to design processes to reach dimensional limits of nanoscale quantum trapping in graphene heterostructures using EFLAO on the AFM.	
Laboratory TA , Department of Physics and Astronomy California State University- Northridge, Northridge, CA	<i>08/2022 – 05/2024</i>
<ul style="list-style-type: none">Taught physics laboratories in Mechanics and Electromagnetism. Responsibilities include lecturing, holding office hours, overseeing experiments, tutoring, maintaining a course webpage, and grading.Catalogued, repaired, and maintained equipment and demonstrations used in undergraduate physics courses and laboratories.	
Visiting Student Researcher, Institute for Quantum Information and Matter , Falson Lab California Institute of Technology, Pasadena, CA	<i>06/2023-12/2023</i>
<ul style="list-style-type: none">Assisted in the growth and synthesis of materials by MBE in a UHV environment and in the measurement and analysis of thin film materials using XRD, PPMS and AFMCharacterized new materials through DFT simulation and analysis using the Vienna Ab Initio Simulation Package (VASP), VESTA, bash scripting, gnuplot and Python.	
Graduate Student Researcher, Keck Computational Physics Laboratory , Kioussis Lab California State University- Northridge, Northridge, CA	<i>12/2022-12/2023</i>
<ul style="list-style-type: none">Performed computational condensed matter physics simulations on novel materials through DFT simulation and analysis using the Vienna Ab Initio Simulation Package (VASP), VESTA, bash scripting, gnuplot and Python.Attended the Principles and Applications of Symmetry and Magnetism (PASM) 2023 workshop in Ft. Collins, CO.	

Aerospace Hydraulics Test Engineer II

Sargent Aerospace and Defense, Tucson, AZ

09/2020 - 04/2021

- Performed qualification testing, including endurance testing and thermal cycling, of aerospace end-use hydraulic actuators and valves, working with project engineers to quantify all aspects of new prototypes and designs.
- Designed Shock Test bed in accordance with MIL-S-901D IC #2 and MIL-S-901E, using DasyLab, Creo, ANSYS and MATLAB, and oversaw repairs of defunct shock test machine per BUSHIPS DWG 10-T-2195.

Marine Hydraulics Test Engineer II

Sargent Aerospace and Defense, Tucson, AZ

06/2019 - 09/2020

- Led multi-million-dollar prototype valve testing team for defense contract, leading internal testing, performing off-site dynamic testing, performing data analysis, writing technical summaries, and testing documents and planning for integration of unit into further project iterations.
- Designed and built all DAS sub-components, including sensor cabling, shock and vibration supports and connections, test area management structures and pneumatic, hydraulic, and electric circuitry.

Manufacturing Engineer Trainee

Sargent Aerospace and Defense, Tucson, AZ

11/2018 - 06/2019

- Designed hydraulic valves and manifolds as acting Product Engineer, starting from customer requirements through design, simulation using FEA, through technical drawing creation to and submittal.
- Wrote and designed qualification testing procedures and technical documents adhering to MIL-STD and customer requirements.

SKILLS

Technical Skills

Microscale Fabrication Methods-2D matl.
Optical Microscope
Soldering/Circuit Design
Troubleshooting/Repair
Data analysis and processing
Data acquisition
UHV systems
MBE systems
AFM
EFLAO on AFM
STM
Laser Safety training
Chemical Safety training
General tool training and proficiency

Computational Skills

C, C++
Python
Bash scripting
VASP simulation software
CAD/Creo/Solid Works
Adobe/Windows/Google/OS Suite
LaTeX
Inkscape
DasyLab
KiCad
MATLAB
Linux
Git
Ansys (Finite Element Analysis)

General Skills

Leadership and teamwork
Problem solving
Project management and planning
Process engineering
Technical document preparation
Written/Spoken communication
ITAR/Restricted document handling
GD&T
Technical drawing preparation
Adaptability and Creativity
Organization/Attention to Detail
Time management
Interpersonal/Social skills
Mentoring/teaching

COMMUNITY ENGAGEMENT

Gaspar De Portola Middle School Science Fair - Judge
Tarzana CA

01/2024

Science Ambassador, Dia De La Ciencia / Science Day

08/2023

Funded by the Partnership for Research and Education in Materials (PREM) and hosted by Dr. Dan Steinberg of Princeton University and Dr. Gang Lu of CSUN
California State University, Northridge

Organizer and Science Ambassador, Dia De La Ciencia / Science Day

04/2023

Funded by the Partnership for Research and Education in Materials (PREM) and hosted by Dr. Dan Steinberg of Princeton University and Dr. Gang Lu of CSUN
California State University, Northridge

Gaspar De Portola Middle School Science Fair - Judge
Tarzana CA

01/2023

REFERENCES

Dr. Anna Bezryadina, Professor of Physics
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Dr. Yohannes Shiferaw, Professor of Physics
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Dr. Joseph Falson, Assistant Professor
Materials Science and Applied Physics, Caltech
1200 East California Boulevard
Pasadena, California 91125
Email: falson@caltech.edu

Dr. D.N. (Donna) Sheng, Professor of Physics
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Email: donna.sheng1@csun.edu